

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: T.L. Ritzdorf et al. Attorney Docket No.: SEMT116048
Application No.: 09/386,734 Group Art Unit: 1742
Filed: August 31, 1999 Examiner: G. Wyszomierski
Title: METHOD AND APPARATUS FOR LOW TEMPERATURE ANNEALING
OF METALLIZATION MICRO-STRUCTURES IN THE PRODUCTION OF
A MICROELECTRONIC DEVICE

PROPOSED AMENDMENT

Seattle, Washington 98101
April 23, 2001

TO THE COMMISSIONER FOR PATENTS:

The following amendments are proposed for discussion purposes:

In the Claims:

Add new Claims 68-70. Amend the claims in accordance with the attached markup. All pending claims as thusly amended follow:

36. (Amended) A method for reducing voids in a metal material that has been electrolytically deposited into recessed microstructures defined in a surface of a microelectronic workpiece comprising:

electrolytically depositing a metal to at least partially fill recessed microstructures in the surface of the workpiece; and

then subjecting the surface of the workpiece to an annealing process at a temperature that is at or below about 250 degrees Celsius.

37. A method as set forth in Claim 36 wherein the metal material comprises copper.

38. A method as set forth in Claim 36 wherein the annealing process comprises subjecting the workpiece to a controlled temperature gradient in which the temperature decreases

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